

Stress, Sleep, and Academic Performance

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Background and Purpose

- “Sleep difficulties are rising and with college students being the most recognized population that is being affected by these sleep difficulties” (Buboltz, Brown, & Soper, 2001).
- “Sleep quality has numerous effects on cognitive performance which is influenced by other factors like stress” (Ahrberg, Dresler, Niedermaier, Steiger, & Genzel, 2012).

Background and Purpose

- “Past studies that have shown that college students regularly do not obtain the suggested hours of sleep; this is resulting for the students to have poor sleep hygiene” (Reynolds & Shell, 2018).
- “When our bodies do not receive adequate amount of sleep or proper sleep quality, it can affect our capacity of learning which hinders our academic performance and our neural-behavioral functions” (Jalali, Khazaei, Paveh, Hayrani, & Menati, 2020).

What Makes Our Study Unique

- Our project will add to what is currently known is to have a more generalized population of college students.
 - Reached out to other majors on the IUS campus so we don't have just psychology majors
 - By posting on social media's, we are hoping to recruit other college students from other campuses



Methodology

Materials and Procedure

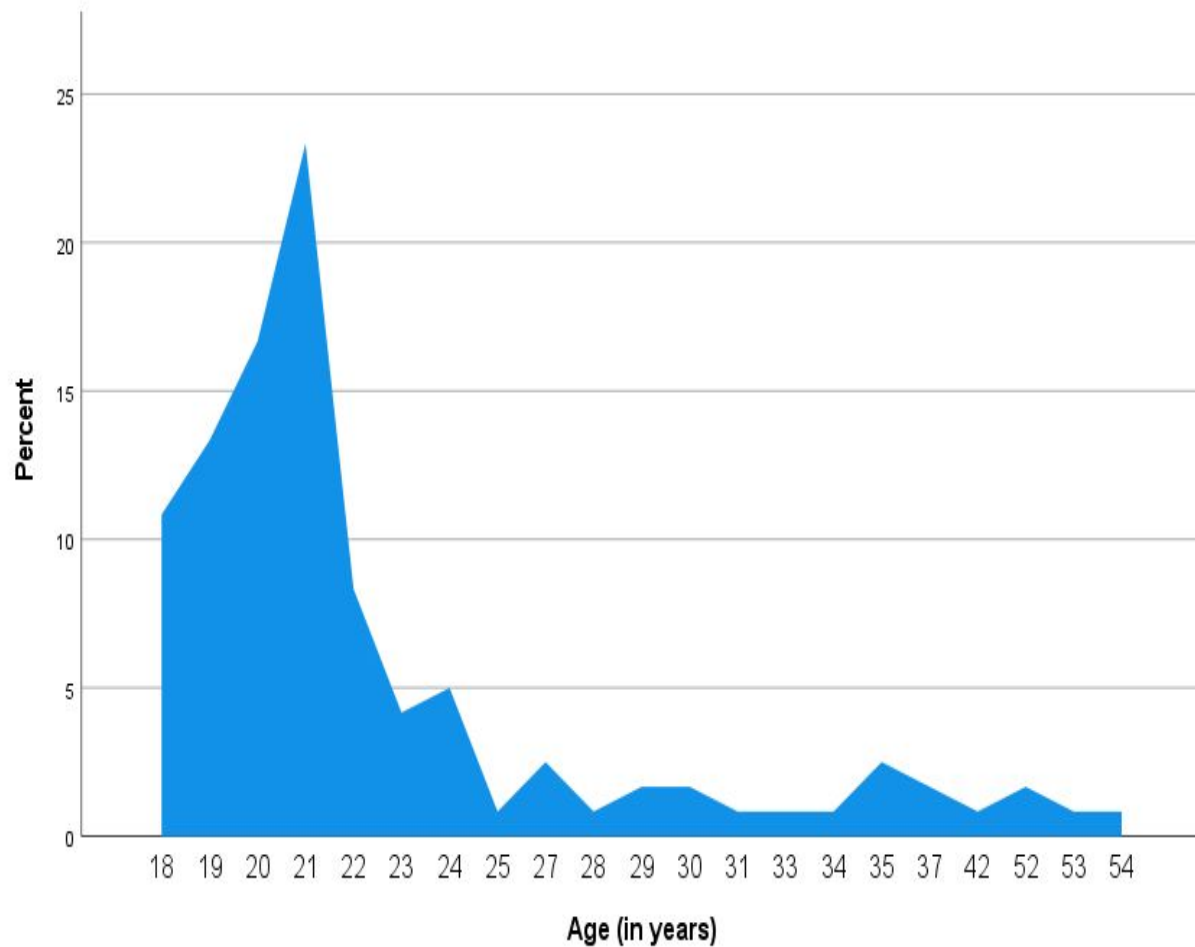
1. Demographics
2. Academic information (Ex: GPA)
3. Sleep Quality Scale (SQS)
 - a. 28-item scale
 - b. Items answered using a four-point Likert scale
4. Perceived Stress Scale (PSS)
 - a. 10-item scale
 - b. Items answered using reverse responses



Results

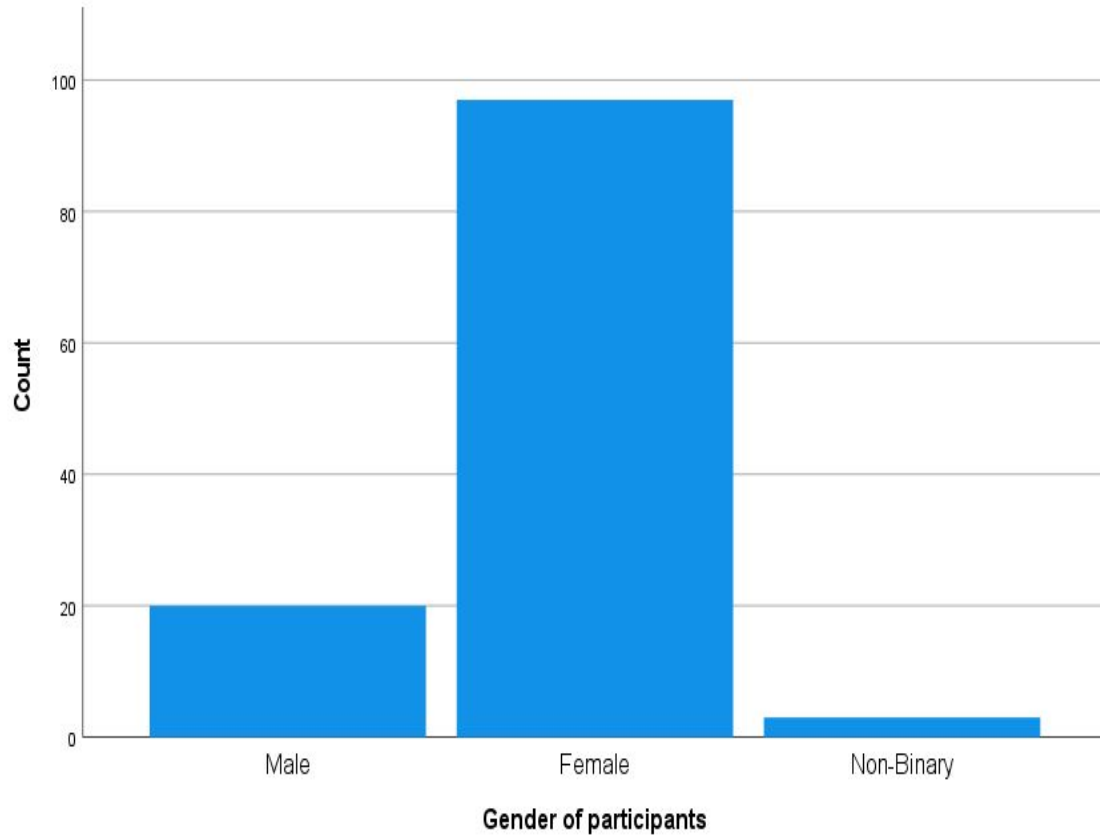
Demographics

- Exclusion criteria
 - 18 years of age minimum
 - Currently enrolled in college
- Sum total of 120 participants



$M = 23.23$, $SD = 7.19$

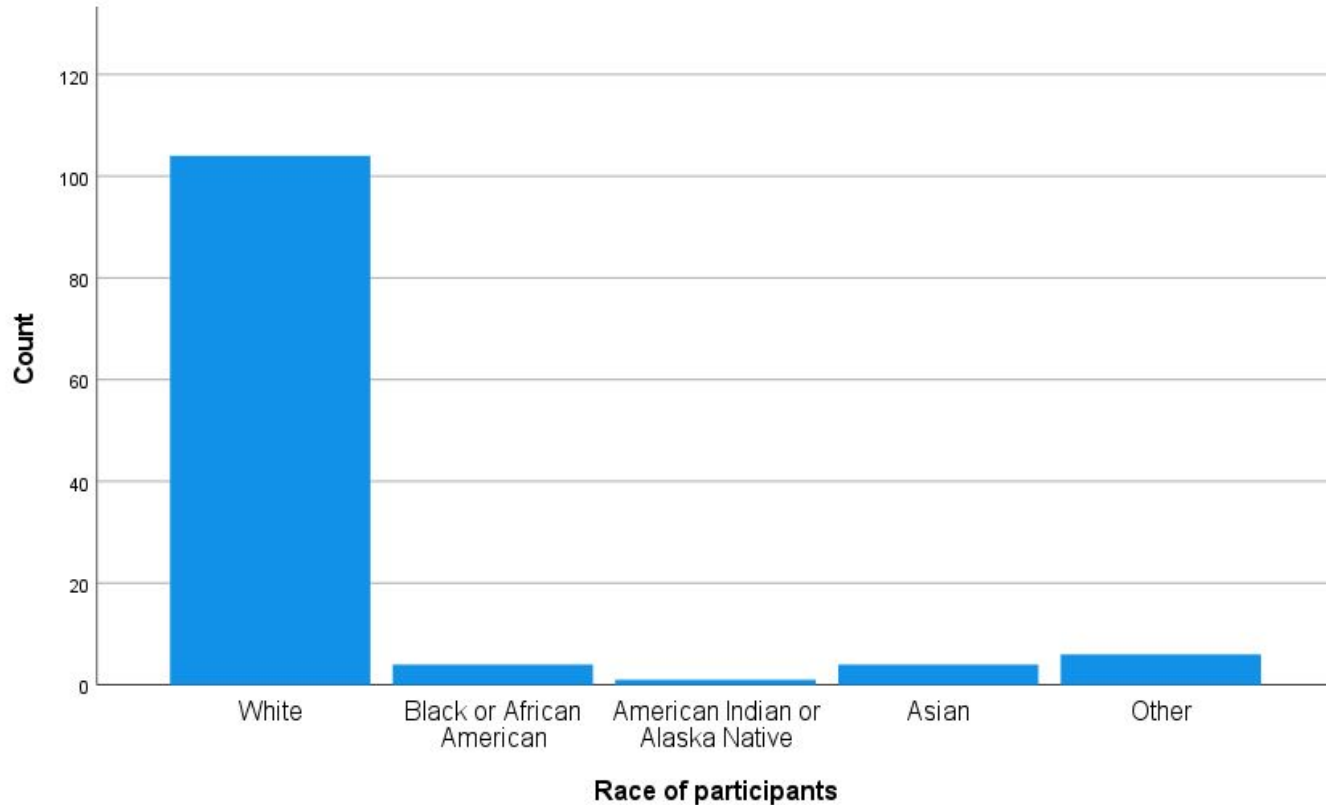
Demographics



- Male - 20 (16.7%)
- Female - 97 (80.8%)
- Non-binary - 3 (2.5%)

Demographics

- **N = 119**
- White - **86.7%**
- Black or African American - **3.3%**
- American Indian or Alaska Native- **.8%**
- Asian - **3.3%**
- Other - **5%**



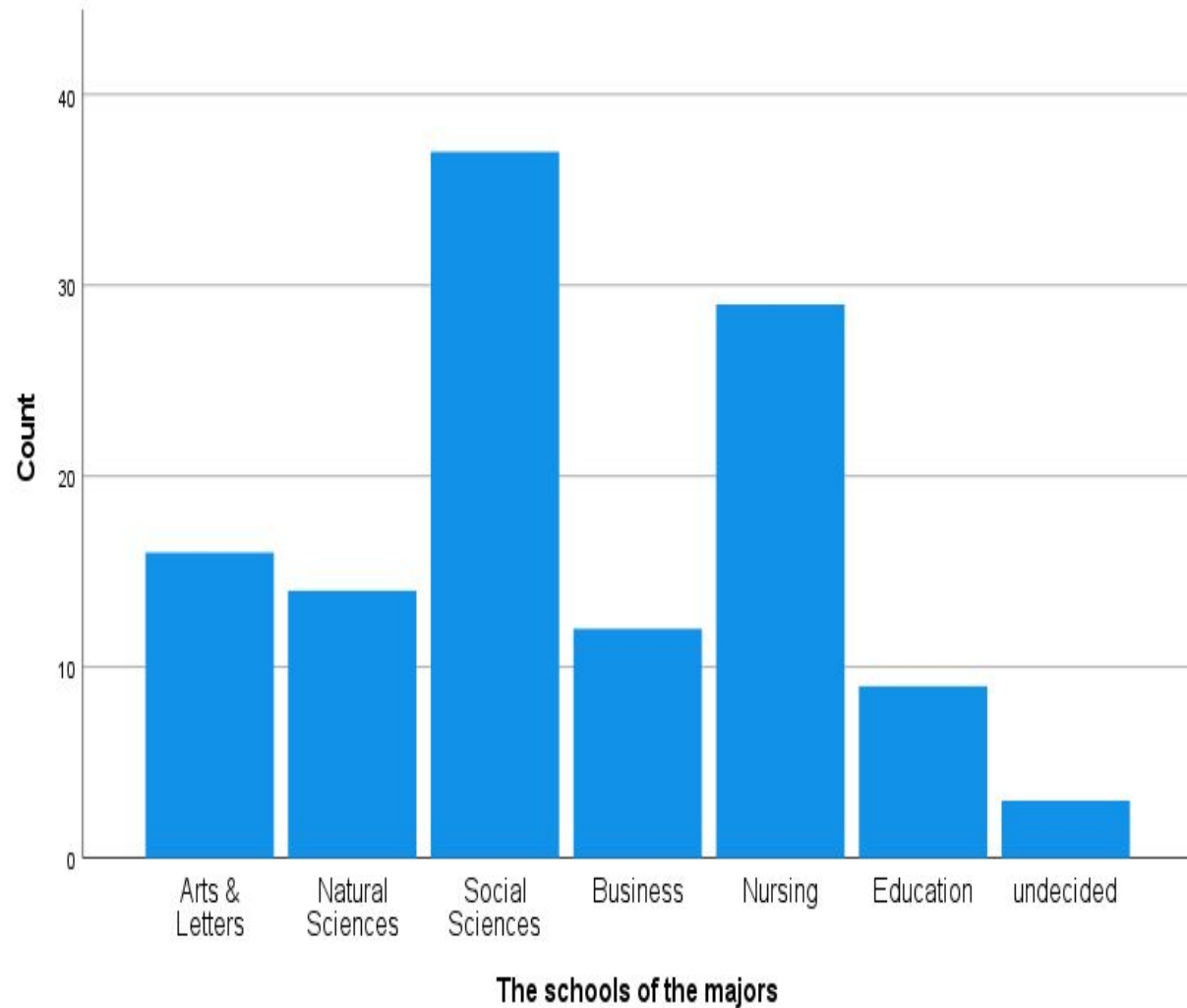
College Student Population

- 109 (**90.8%**) undergraduate and 11 (**9.2%**) graduate students
- **90.8%** currently attend at IUS, the other **9.2%** are from WKU, ECU, Ferris State, IU Northwest, IU, JCTC, Southern Methodist, and University of Cumberlands



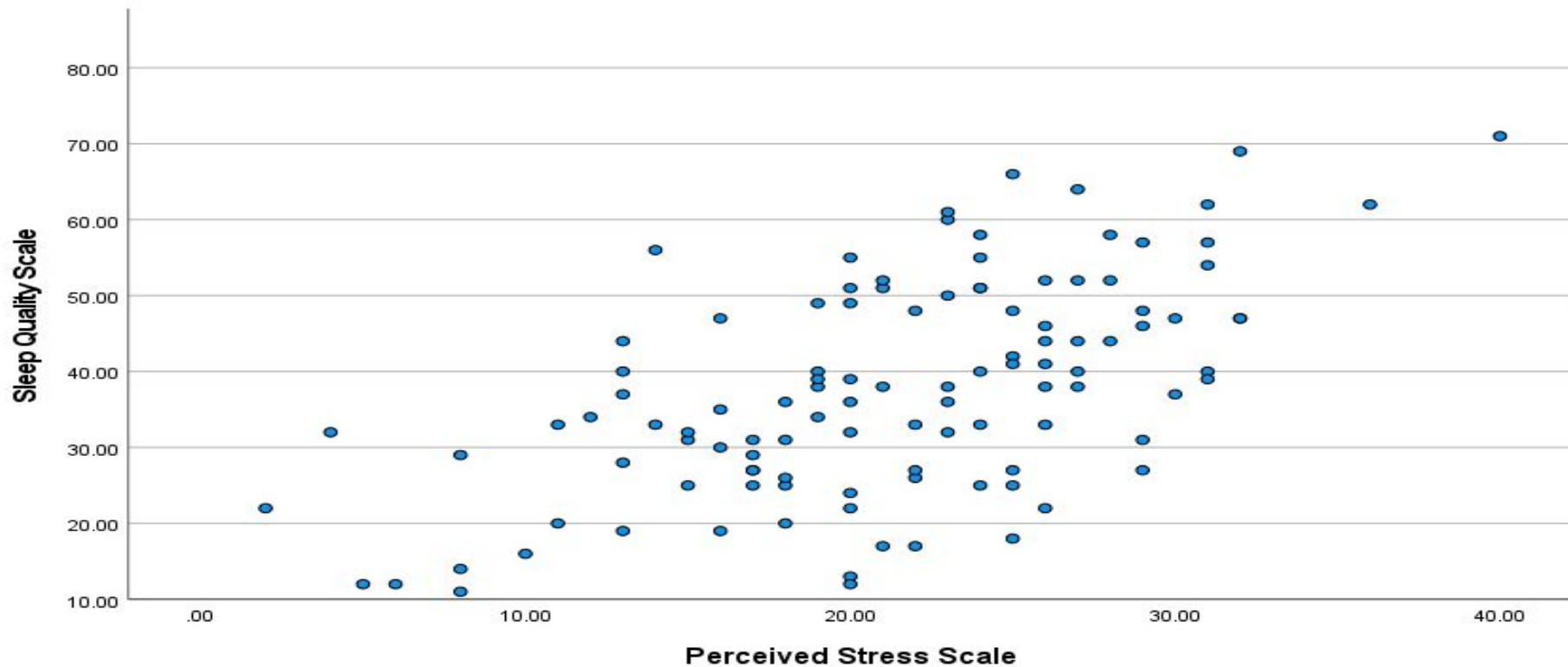
College Student Population

- **Arts & Letters** - 13.3%
- **Natural Science** - 11.7%
- **Social Science** - 30.8%
- **Business** - 10%
- **Nursing** - 24.2%
- **Education** - 7.5%
- **Undecided** - 2.5%



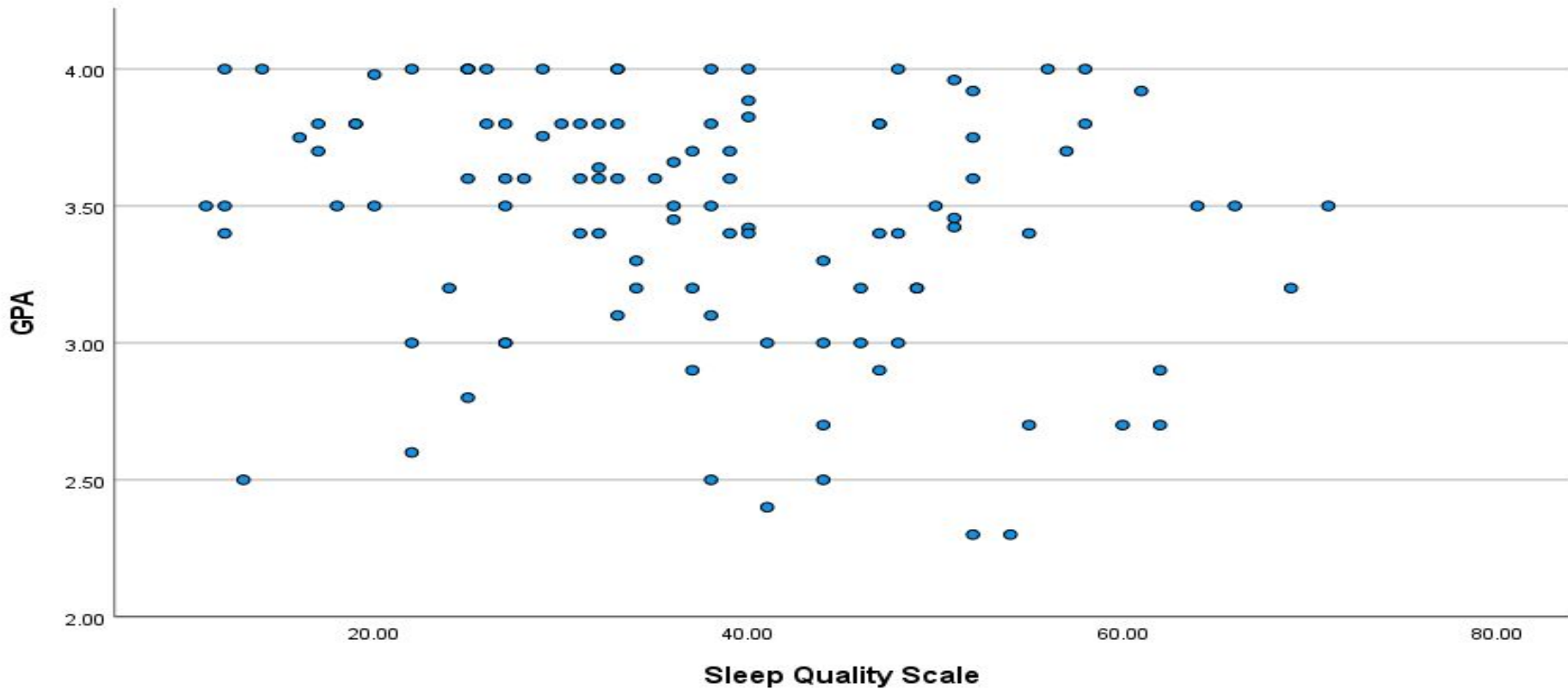
Survey Data

$r(110) = .59, p < .001$



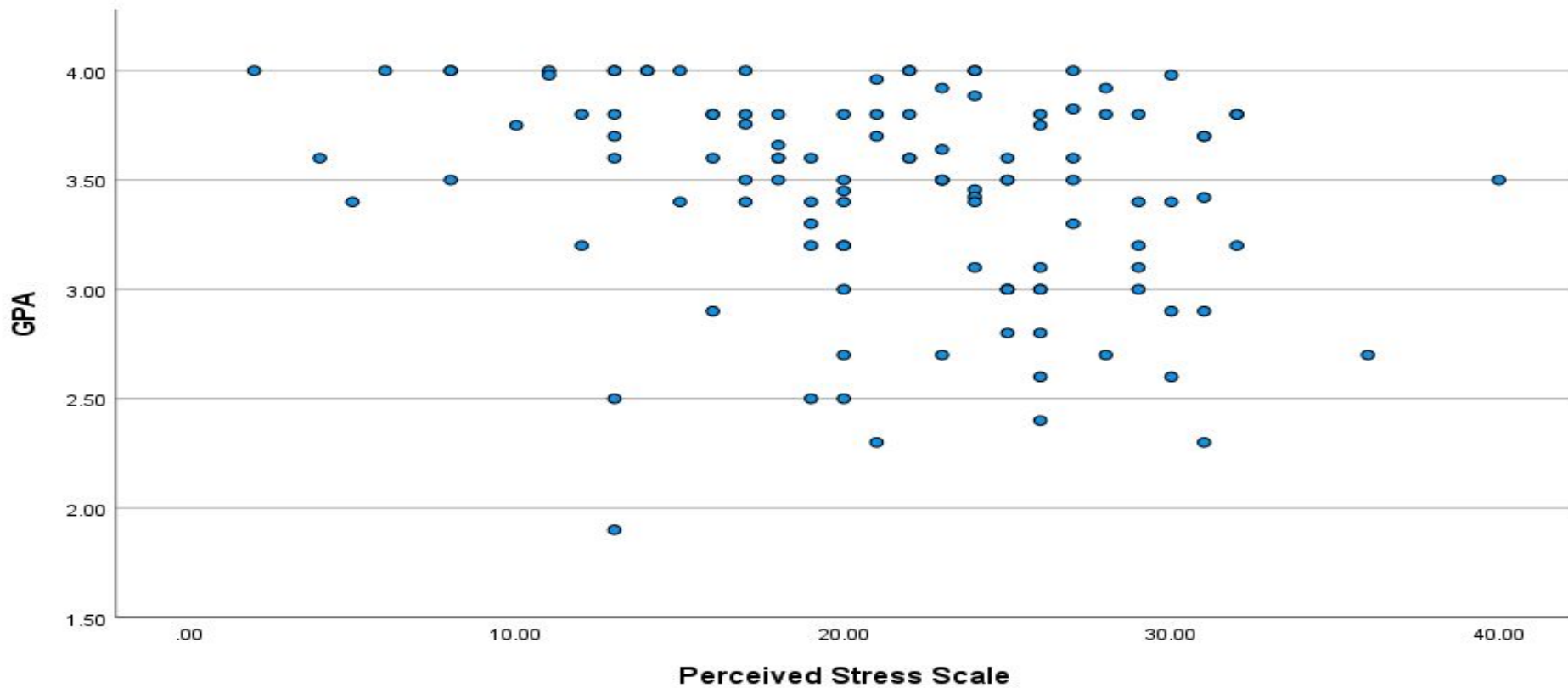
Survey Data

$r(114) = -.209, p < .001$



Survey Data

$r(117) = -.268, p < .001$



Final Results

- There was a significantly moderate positive correlation between sleep quality and perceived stress in college students. Those students who have poor sleep quality also experience high levels of stress.
- The relationship between stress and sleep quality on the participants GPA showed a significantly weak negative correlation. Meaning there is a minimal relationship between sleep quality and stress has on academic performance.



Future Research

- Collect more data from multiple college campuses and get a more generalizable sample of college students



References

- Ahrberg, K., Dresler, M., Niedermaier, S., Steiger, A., & Genzel, L. (2012). The interaction between sleep quality and academic performance. *Journal of Psychiatric Research*, 46(12), 1618-1622. <https://doi-org.proxyse.uits.iu.edu/10.1016/j.jpsychires.2012.09.008>
- Buboltz Jr, W. C., Brown, F., & Soper, B. (2001). Sleep habits and patterns of college students: A preliminary study. *Journal of American College Health*, 50(3), 131-135. doi: 10.1080/07448480109596017
- Jalali, R., Khazaei, H., Paveh, B. K., Hayrani, Z., & Menati, L. (2020). The effect of sleep quality on students' academic achievement. *Advances in medical education and practice*, 11, 497. doi: 10.2147/AMEPS261525
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The background is a solid pink color. In the top right corner, there is a decorative pattern of overlapping geometric shapes, including triangles and squares, in various shades of pink and magenta.

Questions?